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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/685,887 | 10/14/2003 | Guobiao Zhang | GB9C | 5933 |
| 7590 | 09/27/2005 | | EXAMINER | |
| Guobiao Zhang P.O. Box 6182 Stateline, NV 89449-6182 | | | | FRANKLIN, RICHARD B |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2182 | |

DATE MAILED: 09/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|------------------------|---------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/685,887 | ZHANG, GUOBIAO |
| | Examiner | Art Unit |
| | Richard Franklin | 2182 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 24 August 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 46-80 is/are pending in the application.
 - 4a) Of the above claim(s) 72-80 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 46-71 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 14 October 2003 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 46 – 71 have been examined.

Election/Restrictions

2. Applicant's election of claims 46 – 71 in the reply filed on 08 August 2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 4ct (Fig. 14A), 5d (Figs. 1B, 1D), 6b (Fig. 1C), 7B (Fig. 11D), 7f (Fig. 10CC), 8p (Fig. 6AA), 8u (Fig. 10CB), 9p (Fig. 5C), 9u1 (Fig. 5C), 9u2 (Fig. 5C), 16s" (Fig. 6C), 28D (Fig. 12B), 32g (Figs. 6B, 10BB), 36S (Fig. 6B), 60PB (Figs. 1E, 3AB, 4A, 4B), 65h (Fig. 14BB), 65mc (Fig. 3CB), 66bf (Fig. 14BB), 68CI (Fig. 4D), 68SI (Fig. 4D), 84A' (Fig. 14BB), 127bf (Fig. 14C), 137bf (Fig. 14D), 200a1 – 200am (Fig. 7B), 200b1 – 200bn (Fig. 7B), 200c1 – 200co (Fig. 7B), 210dd (Fig. 9A), 210uf (Fig. 9B), 210ug (Fig. 9B), 267dr (Fig. 14EB), 267ic (Fig. 14EB). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing

sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 60CI (Page 12 line 14, Page 13 line 13) and 60SI (Page 12 line 13, Page 13 line 13). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. The disclosure is objected to because of the following informalities:

a. Page 15 Lines 20 – 22: The phrase “initiate the data upload by pressing and holding ‘^’ button 7c4; initiate data download by pressing and holding the ‘v’ button 7c1” is not clear in reference to Figure 8B. In Figure 8B, button 7c1 is the ‘<’ button. Also, there is no button ‘^’ 7c4 in Figure 8B.

b. Page 18 Lines 21 – 23: The sentence beginning with “Alternatively, the HDD ...” is unclear because of grammar mistakes.

c. Page 19 Line 27: Figure 14BB does not include a buffer memory 64bf. Appropriate correction is required.

6. The use of the trademarks PHILIPS, XILINX, CYPRESS SEMICONDUCTOR, GENESYS LOGIC, and CIRRUS LOGIC have been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Art Unit: 2182

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 46 – 48, 53 – 54, 56 – 57, 62, 64 – 65, 67 and 69 – 70 are provisionally rejected under the judicially created doctrine of double patenting over claims 1 – 3, 5 – 6, and 14 – 20 of copending Application No. 10/902,646. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows:

- Claim 46: '646 Claims 1 and 2
- Claims 47 and 48: '646 Claim 6
- Claim 53: '646 Claim 3
- Claims 54 and 56: '646 Claims 4 and 5
- Claim 57: '646 Claim 14
- Claim 62, '646 Claim 15
- Claim 64, '646 Claim 17
- Claim 65, '646 Claim 16
- Claim 67, '646 Claim 18
- Claim 69, '646 Claim 20
- Claim 70, '646 Claim 19

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

This is a provisional double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 46, 51 – 56, and 59 are rejected under 35 U.S.C. 102(e) as being anticipated by Kobayashi et al. US Patent Application Publication No. 2003/0045327.

As per Claim 46, Kobayashi et al. teach a hard-disk drive comprising a head disk assembly for storing data for at least two types of multimedia devices (Figure 2 Item 63), an interface block for connecting the hard drive to any one of the two types of multimedia devices (Figure 2 Items 44, 45, and 46), and a communications means for directly transferring data between the head-disk assembly and a selected one of the two types of multimedia devices through the interface block (Figure 2 Items 41, 61 and 62).

As per Claim 51 and 52, Kobayashi et al. teach a multimedia device as a digital recording device that is a digital camcorder (Figure 1 Item 4).

As per Claims 53 and 54, Kobayashi et al. teach the hard-disk drive as described per Claim 46 and also that the interface block has a serial data interface that is a USB interface (Figure 2 Items 44, 45, and 46).

As per Claims 55 and 56, Kobayashi et al. teach the hard-disk drive as described per Claim 46 and also that the communications means comprises a host controller for controlling direct data transfer between the hard drive and the multimedia device and where the host controller is a USB host controller (Figure 2 Item 46).

As per Claim 59, Kobayashi et al. teach the hard-disk drive as described per Claim 46 and also that the hard disk drive consists of a battery (Figure 2 Item 74).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 47 – 50, 57 – 58, and 61 – 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. US Patent Application Publication No. 2003/0045327.

As per Claims 47, 48, and 50, Kobayashi et al. teach the communication means as described per Claim 46 that includes an IDE interface controller (Figure 2 Item 61). It would have been obvious to one of ordinary skill in the art that Kobayashi et al. teaches the means and circuitry to perform data transfers to the head disk assembly from the multimedia device and from the head disk assembly to the multimedia device.

As per Claims 49 and 61, the Examiner notes that the limitations of the data stored on the head disk assembly as files and storing the files in directories are not structurally involved in the elements of the recited system. Therefore, these limitations are deemed to be nonfunctional descriptive material. The elements of the system would be the same regardless of the arrangement of the data. Differences between the arrangement of the Applicant's data and the prior art are merely subjective. Thus this nonfunctional descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowery*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994), and see MPEP 2106. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to arrange the data of the invention as described per Claim 46 into data files because such data does not structurally relate to the

elements of the claimed system and because the subjective interpretation for files does not patentably distinguish the claimed invention.

As per Claims 57, 66, and 71, Kobayashi et al. teach the hard-disk drive as described per Claims 46, 62, and 67. It would have been obvious to one of ordinary skill in the art that a head-disk assembly in a hard drive includes a servo block and a read channel block; the interface block includes an interface controller; the communications means includes a data-processing block; and the hard drive has a motherboard with all of the components located on it because it is known in the art that these blocks are necessary in the function of a hard-disk drive.

As per Claim 58, Kobayashi et al. teach the hard-disk drive as described per Claim 46. It would have been obvious to one of ordinary skill in the art to remove the LCD screen of Kobayashi et al. in order to increase battery life and decrease the size of the device.

As per Claim 60, it would be obvious to one of ordinary skill in the art to house the head disk assembly in an "L" shaped shell. See *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966), and see MPEP 2144.04.

As per Claims 62 and 67, Kobayashi et al. teach a hard-disk drive comprising a head disk assembly (Figure 2 Item 63) for storing data for at least a multimedia device with a recording / playback function (Figure 1 Item 4), an interface block for connecting the hard drive to the multimedia device (Figure 2 Items 44, 45, and 46), and a communications means for directly transferring data between the head-disk assembly and the multimedia devices through the interface block (Figure 2 Items 41, 61 and 62).

Kobayashi et al teaches the communications means, therefore it would have been obvious to one of ordinary skill in the art that Kobayashi et al. teaches a download / upload means in the communication means.

As per Claims 63 and 68, Kobayashi et al. teach the head drive as described per Claim 62 and that the multimedia device is a digital video camera (Figure 1 Item 4).

As per Claims 64 and 69, Kobayashi et al. teach the head drive as described per Claims 62 and 67 and that the interface block has a serial data interface (Figure 2 Items 44, 45, and 46).

As per Claims 65 and 70, Kobayashi et al. teach the head drive as described per Claims 62 and 67 and that further comprises a host controller for controlling data transfer between the hard drive and the multimedia device (Figure 2 Item 46).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Franklin whose telephone number is (571) 272-0669. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on (571) 272-4083. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Richard Franklin
Patent Examiner
Art Unit 2182



TAMMARA PEYTON
PRIMARY EXAMINER

A handwritten signature of "Tammara Peyton" is written in cursive ink above her printed name and title. The printed text "TAMMARA PEYTON" is in all caps, and "PRIMARY EXAMINER" is also in all caps but on a separate line.